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(54) **ONE-BIT DIGITAL AMPLIFYING DEVICE**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a 1-bit digital amplifying device which can adjust an amplification output by increasing or decreasing an amplitude level by simple constitution for an input 1-bit digital signal even when an applied voltage value for pulse amplification is constant.

SOLUTION: This 1-bit digital amplifying device generates a 1-bit quantization output signal S3 by imposing digital sigma modulation by passing an input signal through a digital sigma modulating circuit composed of a differentiator 2, a digital sigma modulation part 3, a pulse amplifier 4, and a feedback circuit FC and imposes pulse amplification on the quantized output signal S3. A 1-bit digital signal S0 is inputted as the input signal. An amplitude level variation part 12 which varies the amplitude level of the 1-bit digital signal S0 is provided before the pulse amplification.

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